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Method for adjusting a phase angle of a phase modifier of a transmitting device

This application is a 371 of PCT/EP04/06078, filed

June 29, 2000, which claims priority to Germany application NO. 199 46 669,6,

The invention relates to a method for adjusting a phase angle of a phase modifier of a transmitting device. The transmitting device comprises a quadrature modulator and a power amplifier which is linearized via a so-called Cartesian feedback loop with a quadrature demodulator.

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- 10 A method according to the preamble of claim 1 emerges, for example, from EP 0 706 259 A1. In the transmitting device emerging from this publication a basic band input signal is supplied to a quadrature modulator via two differential amplifiers. Said quadrature modulator performs quadrature 15 modulation of the inphase component and the quadrature phase component of the complex input signal. Power amplification takes place in a power amplifier connected downstream the quadrature modulator. To compensate the non-linearity of this power amplifier a feedback loop is 20 provided, generally designated as a Cartesian feedback. In this feedback loop is located a quadrature demodulator which separates the feedback signal into a feedback inphase component and a feedback quadrature phase component. The feedback inphase component is supplied, together with the 25 inphase component of the input signal, to a first differential amplifier, connected upstream the quadrature modulator. Correspondingly the feedback quadrature phase component is supplied, together with the quadrature phase component of the input signal, to a second differential 30 amplifier. In this way the non-linearities of the power amplifier are compensated via the feedback signal.

In a transmitting device operating according to the Cartesian feedback method it is particularly important that